

This wiring diagram is for 1182 series 48 VAC
120VAC Input. Hammond Toroid transformers only.
Used for Nema34 motors and drivers only.

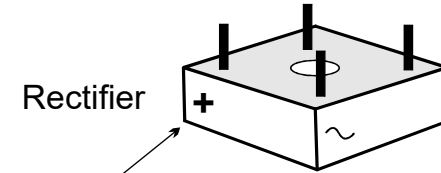
Transformer size: Add up all the Phase Currents of all connected motors. Consider any future upgrades. Then multiply the total current X the voltage of the transformer. This will be the VA rating of the transformer. See notes.

Eg. 48V transformer

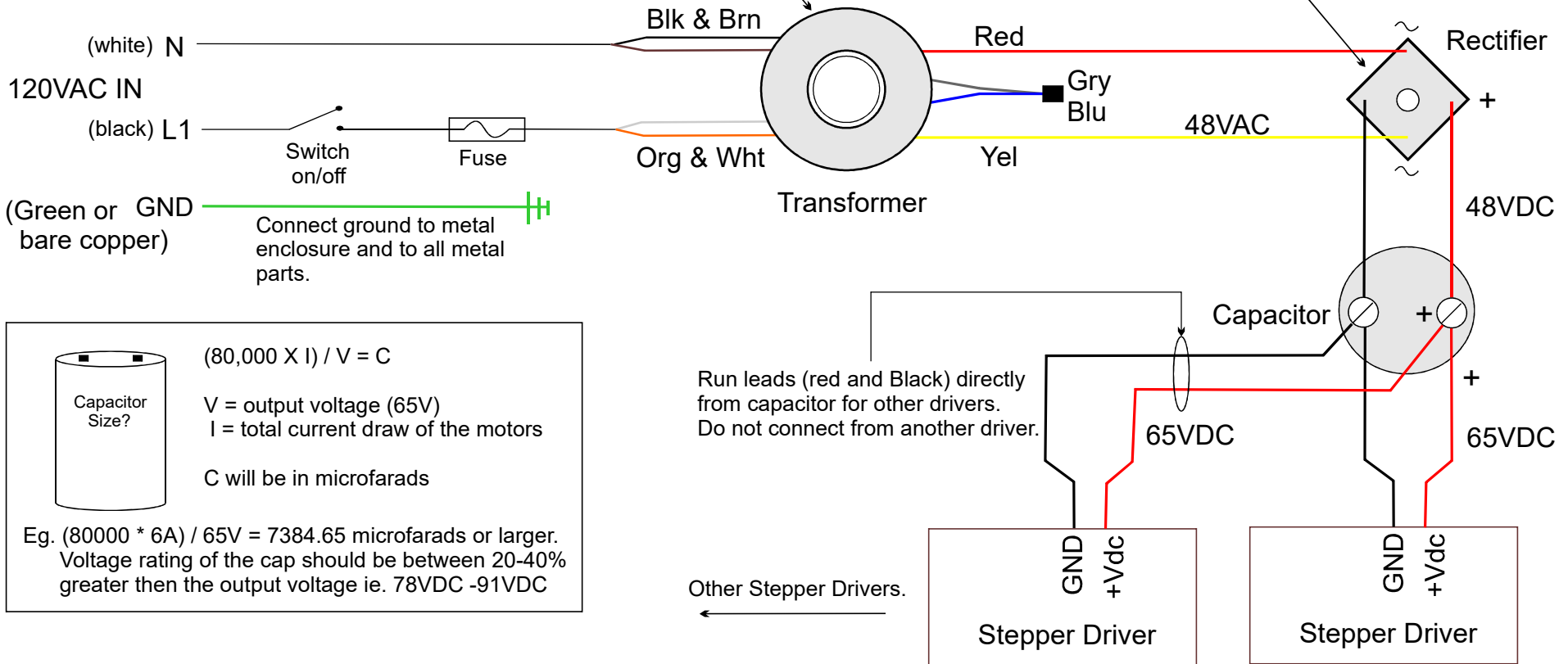
3 motors phase current of 2.5 amps each = 7.5A

7.5A X 48V = 360VA Transformer required: 48VAC / 360 VA

Rectifier should be large enough to handle all the current and voltage maximums with about 25% headroom. Should be mounted on a heat sink.



Look for the + on the rectifier. Kitty corner from it, is the Neg (GND). The other remaining two pins are AC in. ~



(Green or GND bare copper) Connect ground to metal enclosure and to all metal parts.

Capacitor Size?

$(80,000 \times I) / V = C$

V = output voltage (65V)
 I = total current draw of the motors

C will be in microfarads

Eg. $(80000 * 6A) / 65V = 7384.65$ microfarads or larger.
 Voltage rating of the cap should be between 20-40% greater than the output voltage ie. 78VDC -91VDC

Run leads (red and Black) directly from capacitor for other drivers. Do not connect from another driver.

Other Stepper Drivers.

Note: It can be argued that it would be rare that all the motors would draw their full phase current at the same time. Therefore it maybe allowable to reduce the total current required by 25 - 30%.

ATTENTION ! 120VAC can kill. Always disconnect power sources when working on any electrical circuit. Use extreme caution when making connections. If you do not have the knowledge or understanding of electricity seek the advice of a qualified person. Capacitors can hold large amounts of electricity even when the power has been disconnected.